

N-Methyl-N-(N,N-dimethylaminoethyl)-aminoethan

Other names:	2-([2-(Dimethylamino)ethyl]methylamino)ethanol 2-{[2-(dimethylamino)ethyl](methyl)amino}ethanol Ethanol, 2-[[2-(dimethylamino)ethyl]methylamino]- N-methyl-N-(N,N-dimethylaminoethyl)aminoethanol
Inchi:	InChI=1S/C7H18N2O/c1-8(2)4-5-9(3)6-7-10/h10H,4-7H2,1-3H3
InchiKey:	LSYBWANTZYUTGJ-UHFFFAOYSA-N
Formula:	C7H18N2O
SMILES:	CN(C)CCN(C)CCO
Mol. weight [g/mol]:	146.23
CAS:	2212-32-0

Physical Properties

Property code	Value	Unit	Source
gf	92.80	kJ/mol	Joback Method
hf	-204.98	kJ/mol	Joback Method
hfus	24.02	kJ/mol	Joback Method
hvap	51.94	kJ/mol	Joback Method
log10ws	0.84		Crippen Method
logp	-0.528		Crippen Method
mcvol	135.320	ml/mol	McGowan Method
pc	3079.57	kPa	Joback Method
tb	480.20	K	NIST Webbook
tc	634.72	K	Joback Method
tf	294.41	K	Joback Method
vc	0.482	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	311.34	J/molxK	476.62	Joback Method
cpg	323.55	J/molxK	502.97	Joback Method
cpg	335.24	J/molxK	529.32	Joback Method
cpg	346.42	J/molxK	555.67	Joback Method
cpg	357.12	J/molxK	582.02	Joback Method

cpg	367.34	J/mol×K	608.37	Joback Method
cpg	377.11	J/mol×K	634.72	Joback Method
pvap	0.06	kPa	317.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.01	kPa	295.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.01	kPa	297.50	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.01	kPa	299.60	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.02	kPa	301.40	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.02	kPa	303.40	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.02	kPa	305.40	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.03	kPa	307.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.03	kPa	309.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines

pvap	0.04	kPa	311.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.04	kPa	313.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.05	kPa	315.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	8.74e-03	kPa	293.40	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.07	kPa	319.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.08	kPa	321.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.10	kPa	323.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.11	kPa	325.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.13	kPa	327.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.14	kPa	329.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines

pvap	0.17	kPa	331.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.20	kPa	333.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.22	kPa	335.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.25	kPa	337.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.30	kPa	339.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.34	kPa	341.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.37	kPa	343.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.43	kPa	345.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.48	kPa	347.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.55	kPa	349.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines

pvap	0.62	kPa	351.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines
pvap	0.69	kPa	353.20	Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines

Sources

Vapor Pressures and Enthalpies of Vaporization of a Series of Low-Volatile Alkanolamines:

<https://www.doi.org/10.1021/je2002489>

Advanced Method:

https://en.wikipedia.org/wiki/Joback_method

McGowan Method:

<http://link.springer.com/article/10.1007/BF02311772>

NIST Webbook:

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C2212320&Units=SI>

Crippen Method:

<http://pubs.acs.org/doi/abs/10.1021/ci990307l>

Crippen Method:

https://www.chemeo.com/doc/models/crippen_log10ws

Excess molar enthalpies for binary mixtures of different amines with water:

<https://www.doi.org/10.1016/j.jct.2015.04.030>

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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